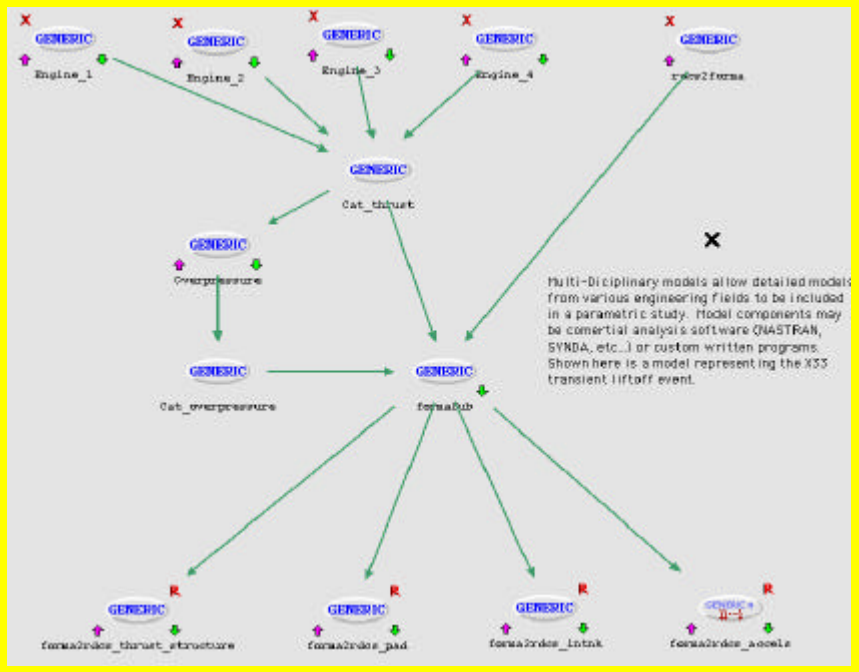
Rapid Parametric Analysis Tools



Objective

This effort will develop an analysis manager which allows parametric studies (sensitivities, optimizations, probalistics, etc.) to be performed on multi-disciplinary models. The code handles the major "bookkeeping" tasks (file transfers, execution and result collection) of analysis with multi-disciplinary models constructed as a sequence of discipline specific analysis codes. The present software runs on Sun and Hewlett Packard (HP) workstations. For MSFC to take full advantage of this software, it needs to be ported to Silicone Graphics Incorporated (SGI) workstations.

Why Needed

This tool can greatly reduce the time required to perform detailed design studies on complex multi-disciplinary models. This helps achieve the often contradictory goals of reduced design cycle time and greater understanding of the design behavior; which in turn will reduce cost and produce robust designs. The tool will be ported to MSFC engineering workstations (SGIs) which can be used to reduce cost and time for our present and future programs. It will help in the area of trade and sensitivity studies where feasibility of the program is critical.

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Sponsor

Rocketdyne, Ford, MacNeal Schwindler